REMARKS

Entry of the foregoing, reexamination and reconsideration of the application identified in caption, as amended, pursuant to and consistent with 37 C.F.R. § 1.112, and in light of the remarks which follow, are respectfully requested.

Claims 39, 48-54, 59, 60, 62, 64-67, 69, 70 and 72-75 have been amended in response to issues raised in the Office Action. Claims 39-76 remain pending in the application.

The requirement for an Abstract has been complied with. This amendment provides an Abstract on a separate sheet as requested.

Claims 39-76 have been rejected under 35 U.S.C. § 112, second paragraph, for reasons set forth in paragraph (2) of the Office Action. Reconsideration of this rejection is requested in view of the above amendments and the following comments.

As stated in Section 2173.02, MPEP, the essential inquiry pertaining to compliance with the requirement of 35 U.S.C. § 112, second paragraph, is whether the claims set out and circumscribe a particular subject matter with a reasonable degree of clarity and particularity. Definiteness of claim language must be analyzed in light of the present disclosure and the teachings of the prior art. With these principles in mind, Applicants submit that the presently amended claims fully comply with §112, second paragraph.

The language "low viscosity" is defined in the specification on page 19, lines 17-24. Those of ordinary skill would have no difficulty in ascertaining the scope of the claims as a whole in view of this definition in the disclosure.

In claims 39, 59 and 60, the language "said isocyanates monomeres" has been corrected or deleted. In claim 48, the spelling of "uretidinedione" has been corrected. Regarding claim 47, line 1 thereof indicates that the process is continuous.

Claims 48-51 have been amended to clarify that the reaction produces at least one trimer containing an isocyanurate unit and/or at least one compound containing a biuret unit. This is consistent with the disclosure on page 16, lines 9-20. Moreover, cyclo (condensation) catalysts and conditions are described at length in the specification from page 17, line 3 to page 18, line 37. It is respectfully submitted that those of ordinary skill would be aware of the scope of cyclo(condensation) catalysts and conditions from the discussion thereof in the disclosure.

The comments at the bottom of page 2 of the Office Action regarding claims 52-54 have been considered. These claims are to a process wherein the starting reaction medium contains isocyanate monomers and at least one compound having a function other than an isocyanate which is reactive with the isocyanate function. The resultant low viscosity composition contains at least one isocyanate dimer and at least one compound having a function derived from the isocyanate function. This feature is discussed in the specification on page 21, line 13 to page 22, line 16. Applicants submit that the scope of the claims would be clearly understood by those of ordinary skill.

Terminology such as "where appropriate", "type", "advantageously", "-based", "can be", "can bear", etc. have been removed from the claims. The dependency of claim 62 has been clarified. Basis for wt. percents has been added. The structures in claim 67 have been corrected. Other claims have been amended in response to comments made on

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page 5 of the Office Action. It is believed that the present claims, as amended, are free of any objections raised in the Office Action.

With respect to the objections raised on page 4 of the Action regarding claims 66, 68, 72 and 75, reconsideration is requested. Applicants submit that those of ordinary skill would have no difficulty in ascertaining the scope of these claims, as presently amended.

In reviewing claim 66, Applicants noted that the subscript "p" was inadvertently omitted in formulas (X) and (V). These have now been corrected.

The present claims, as amended, are believed to be free of the objections raised in the Office Action. Accordingly, the rejection based on § 112, second paragraph, should be withdrawn.

Claims 39-76 have been rejected under 35 U.S.C. § 112, first paragraph, for the reason set forth in paragraph (3) of the Office Action. Reconsideration of this rejection is requested in view of the following.

The term "low viscosity" has been defined in the specification on page 19, lines 17-24. As such, the disclosure reasonably conveys to those of ordinary skill in the art that the present inventors were in possession of the claimed invention. Accordingly, this rejection should be withdrawn.

In view of the above amendments and remarks, Applicants respectfully submit that this application is now in allowable condition. An early and favorable indication to that effect is earnestly solicited.

Respectfully submitted,

Burns, Doane, Swecker & Mathis, L.L.P.

 $\mathbf{R}\mathbf{v}$

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Date: January 2, 2002

Attachment to Amendment Pursuant to 37 C.F.R. § 1.111 dated January 2, 2002

Marked-up Claims 39, 48-54, 59, 60, 62, 64-67, 69, 70 and 72-75

39. (Amended) A process for the preparation of a low-viscosity (poly)isocyanate composition comprising at least one isocyanate dimer containing a uretidinedione unit, from starting isocyanate monomers in which the isocyanate groups are borne by sp³ carbon atoms, comprising the step of heating a starting reaction medium comprising said isocyanate[s monomers] monomers, in the absence of a dimerization catalyst, to a temperature of at least 50°C and of not more than 200°C for a period of not more than 24 hours.

[47] 48. (Amended) A process for the preparation of a low-viscosity polyfunctional isocyanate composition containing at least one isocyanate trimer containing an isocyanurate unit and/or at least one compound containing a biuret unit and at least one isocyanate dimer containing a [uretiainedione] uretidinedione unit, from starting isocyanate monomers, in which the isocyanate groups are borne by sp³ carbon atoms, and optionally from other monomers, this process comprising the following steps:

- i) heating the starting reaction medium, in the absence of dimerization catalyst, to a temperature of at least 80°C, and of not more than 200°C, for a period of less than 24 hours;
- ii) reacting the reaction product from step i) containing unreacted monomers with a (cyclo)condensation catalyst, under (cyclo)trimerization conditions;

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Attachment to Amendment Pursuant to 37 C.F.R. § 1.111 dated January 2, 2002 Marked-up Claims 39, 48-54, 59, 60, 62, 64-67, 69, 70 and 72-75

- iii) removing the unreacted starting monomers from the reaction product from step ii); and
- iv) isolating the low-viscosity polyfunctional isocyanate composition comprising at least one isocyanate trimer <u>and/or biuret compound</u> and at least one isocyanate dimer.
- 49. (Amended) A process for the preparation of a low-viscosity polyfunctional isocyanate composition containing at least one isocyanate trimer containing an isocyanurate unit and/or at least one compound containing a biuret unit and at least one isocyanate dimer containing a uretidinedione unit, from starting isocyanate monomers, in which the isocyanate groups are borne by sp³ carbon atoms, and optionally from other monomers, this process comprising the following steps:
- i) heating the starting reaction medium, in the absence of dimerization catalyst, to a temperature of at least 120°C, and of not more than 170°C, for a period of less than 5 hours:
- ii) reacting the reaction product from step i) containing unreacted monomers with a (cyclo)condensation catalyst, under (cyclo)trimerization conditions;
- iii) removing the unreacted starting monomers from the reaction product from step ii); and
- iv) isolating the low-viscosity polyfunctional isocyanate composition comprising at least one isocyanate trimer <u>and/or biuret compound</u> and at least one isocyanate dimer.

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Marked-up Claims 39, 48-54, 59, 60, 62, 64-67, 69, 70 and 72-75

- 50. (Amended) A process for the preparation of a low-viscosity polyfunctional isocyanate composition containing at least one isocyanate trimer containing an isocyanurate unit and/or at least one compound containing a biuret unit and at least one isocyanate dimer containing a uretidinedione unit, from starting isocyanate monomers in which the isocyanate groups are borne by sp³ carbon atoms, and optionally from other monomers, this process comprising the following steps:
- i) reacting the starting monomers with a (cyclo)trimerization or (cyclo) condensation catalyst under (cyclo)trimerization or (cyclo)condensation conditions;
- ii) heating the reaction product from step i) containing unreacted isocyanate monomers, in the absence of dimerization catalyst, to a temperature of at least 80°C, and of not more than 200°C, for a period of less than 24 hours;
- iii) removing the unreacted starting monomers from the reaction product from step ii); and
- iv) isolating the low-viscosity polyfunctional isocyanate composition comprising at least one isocyanate trimer <u>and/or biuret compound</u> and at least one isocyanate dimer.
- 51. (Amended) A process for the preparation of a low-viscosity polyfunctional isocyanate composition containing at least one isocyanate trimer containing an isocyanurate unit and/or at least one compound containing a biuret unit and at least one isocyanate dimer containing a uretidinedione unit, from starting isocyanate monomers in which the

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Marked-up Claims 39, 48-54, 59, 60, 62, 64-67, 69, 70 and 72-75 isocyanate groups are borne by sp³ carbon atoms, and optionally from other monomers, this process comprising the following steps:

- i) reacting the starting monomers with a (cyclo)trimerization or (cyclo) condensation catalyst under (cyclo)trimerization or (cyclo)condensation conditions;
- ii) heating the reaction product from step i) containing unreacted isocyanate monomers, in the absence of dimerization catalyst, to a temperature of at least 120°C, and of not more than 170°C, for a period of less than 5 hours;
- iii) removing the unreacted starting monomers from the reaction product from step ii); and
- iv) isolating the low-viscosity polyfunctional isocyanate composition comprising at least one isocyanate trimer <u>and/or biuret compound</u> and at least one isocyanate dimer.
- 52. (Amended) A process for the preparation of a low-viscosity polyfunctional isocyanate composition comprising at least one isocyanate dimer containing a uretidinedione unit and at least one other compound having a function derived from the isocyanate function, from starting isocyanate monomers in which the isocyanate groups are borne by sp³ carbon atoms and another compound comprising at least one function other than isocyanate, which is reactive with the isocyanate function, this process comprising the following steps:

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Marked-up Claims 39, 48-54, 59, 60, 62, 64-67, 69, 70 and 72-75

- i) heating the starting reaction medium, in the absence of dimerization catalyst, to a temperature of greater than at least 80°C, and less than at least 200°C, for a period of less than 24 hours;
- ii) reacting together the reaction product from step i) containing unreacted isocyanate monomers and a compound comprising at least one function other than the isocyanate function, which is reactive with the isocyanate function, optionally in the presence of a catalyst;
- iii) removing from the reaction product from step ii) the isocyanate monomers and, [where appropriate] optionally, the compound comprising at least one function other than the isocyanate function, which is reactive with the isocyanate function; and
- iv) isolating the polyfunctional isocyanate composition of low-viscosity comprising at least one isocyanate dimer containing a uretidinedione unit and at least one other function derived from the isocyanate function.
- 53. (Amended) A process for the preparation of a low-viscosity polyisocyanate composition comprising at least one isocyanate dimer containing a uretidinedione unit and at least one other compound containing a function derived from the isocyanate function, starting with isocyanate monomers in which the isocyanate groups are borne by sp³ carbon atoms and with another compound comprising at least one function other than isocyanate, which is reactive with the isocyanate function, this process comprising the following steps:

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- (i) reacting an isocyanate monomer with a compound comprising at least one function other than an isocyanate function, which is reactive with the isocyanate function, optionally in the presence of a catalyst;
- heating the reaction mixture from step i) containing unreacted isocyanate monomers, in the absence of dimerization catalyst, to a temperature of greater than at least 80°C, and not more than 200°C, for a period of less than 24 hours;
- iii) removing from the reaction product from step ii) the monomers and, [where appropriate] optionally, the compound comprising at least one function other than the isocyanate function, which is reactive with the isocyanate function; and
- iv) isolating the low-viscosity polyisocyanate composition [comprising at least one polyisocyanate trimer and at least one polyisocyanate dimer].
- 54. (Amended) A process for the preparation of a low-viscosity polyfunctional isocyanate composition comprising at least one isocyanate dimer containing a uretidinedione unit and at least one other compound having a function derived from the isocyanate function, from starting isocyanate monomers in which the isocyanate groups are borne by sp³ carbon atoms and another compound comprising at least one function other than isocyanate, which is reactive with the isocyanate function, this process comprising the following steps:

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- i) reacting an isocyanate monomer with a compound comprising at least one function other than an isocyanate function, which is reactive with the isocyanate function, optionally in the presence of a catalyst;
- ii) heating the reaction mixture from step i) containing unreacted isocyanate monomers, in the absence of dimerization catalyst, to a temperature of greater than at least 120°C, and not more than 170°C, for a period of less than 5 hours;
- iii) removing from the reaction product from step ii) the monomers and, [where appropriate] optionally, the compound comprising at least one function other than the isocyanate function, which is reactive with the isocyanate function; and
- iv) isolating the low-viscosity polyisocyanate composition [comprising at least one polyisocyanate trimer and at least one polyisocyanate dimer].
- 59. (Amended) A process for the preparation of a low-viscosity (poly)isocyanate composition comprising at least one isocyanate dimer containing a uretidinedione unit, from starting isocyanate monomers in which the isocyanate groups are borne by sp³ carbon atoms, comprising the step of heating a starting reaction medium comprising said isocyanate[s monomers] monomers, in the absence of a dimerization catalyst, to a temperature of at least 50°C and of not more than 200°C for a period of not more than 24 hours, [comprising adding to] the reaction medium containing the starting monomers also containing a compound of general formula I:

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Marked-up Claims 39, 48-54, 59, 60, 62, 64-67, 69, 70 and 72-75

$$R = \begin{bmatrix} C - (CH_2OH)_3 \end{bmatrix}_n$$
 (I)

in which

R is a mono- or n-valent hydrocarbon[-based] group having from 1 to 30 carbon atoms, in which the hydrocarbon[-based] chain [can be] optionally is interrupted by one or more chalcogen atoms and optionally. [can bear] bears 1 to 3 OH groups, and n is an integer ranging from 1 to 3, said composition optionally containing [and/or] products derived from [this derivative by a] reaction of said compound of formula I with a compound bearing an aliphatic isocyanate function.

60. (Amended) A process [for the preparation of a low-viscosity (poly)isocyanate composition comprising at least one isocyanate dimer containing a uretidinedione unit, from starting isocyanate monomers in which the isocyanate groups are borne by sp³ carbon atoms, comprising the step of heating a starting reaction medium comprising said isocyanates monomeres, in the absence of a dimerization catalyst, to a temperature of at least 50°C and of not more than 200°C for a period of not more than 24 hours] according to claim 59, comprising adding to the reaction medium containing the starting monomers a compound of general formula II and/or III below:

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Marked-up Claims 39, 48-54, 59, 60, 62, 64-67, 69, 70 and 72-75

$$R_{1} = \begin{bmatrix} CH_{2}OCONHX_{1} \\ CH_{2}OCONHX_{2} \\ CH_{2}OCONXX_{3} \end{bmatrix}_{n}$$

$$R_{2} = \begin{bmatrix} CH_{2}OCONX'X''_{1} \\ CH_{2}OCONX'_{2}X''_{2} \\ CH_{2}OCONX'_{3}X''_{3} \end{bmatrix}_{n}$$

$$(III)$$

in which

one or more of X_1 , X_2 and X_3 represents a group R'-(N=C=O)_p in which R' is a p-valent aliphatic group and p is an integer ranging from 0 to 5, the others representing, [where appropriate,] a group of formula

[R' and p being as defined above,]





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Marked-up Claims 39, 48-54, 59, 60, 62, 64-67, 69, 70 and 72-75 R_1 is $[R_1]$ a mono-or n-valent hydrocarbon group having 1 to 30 carbon atoms, in which the hydrocarbon chain optionally is interrupted by one or more chalcogen atoms and optionally, bears 1 to 3 OH groups, with the OH groups optionally substituted, [where appropriate,] with a group $CONX_1H$, X_1 being as defined above, at least one of $NX'_1X''_1$, $NX'_2X''_2$ and $NX'_3X''_3$ represents the group

$$\begin{array}{c}
R' \longrightarrow (N = C = O)_p \\
C \longrightarrow NH \longrightarrow R' \longrightarrow (N = C = O)_p \\
\parallel O \\
\end{array}$$
(V)

[R' and p being as defined above], the others representing a group NX_1H or NX_1 -silyl [with X_1 as defined above] and R_2 being [R] a mono or n-valent hydrocarbon group having 1 to 30 carbon atoms, in which the hydrocarbon chain optionally is interrupted by one or more chalcogen atoms and optionally, bears 1 to 3 OH groups, with the OH groups optionally substituted, [where appropriate,] with a group $CONX_1H$, or

$$-CO-N \xrightarrow{R' - (N = C = O)_p} C-NH-R' - (N = C = O)_p$$

$$(VI)$$

[R' and p being as defined above,] and n is an integer ranging from 1 to 3.



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Marked-up Claims 39, 48-54, 59, 60, 62, 64-67, 69, 70 and 72-75

62. (Amended) A process according to Claim [59] <u>60</u>, wherein said compound of general formula I is selected from pentaerythritol and trimethylolpropane, and the compounds of general formulae II and III are selected[, where appropriate,] from the corresponding pentaerythritol and trimethylolpropane derivatives of general formula II and/or III [below:

$$R_{1} \begin{array}{|c|c|c|c|c|} \hline & CH_{2}OCONHX_{1} \\ \hline & CH_{2}OCONHX_{2} \\ \hline & CH_{2}OCONHX_{3} \\ \hline & n \\ \hline \end{array} \hspace{0.5cm} (II)$$

$$R_{2} \begin{array}{|c|c|c|c|c|}\hline & CH_{2}OCONX'X"_{1} \\\hline & CH_{2}OCONX'_{2}X"_{2} \\\hline & CH_{2}OCONX'_{3}X"_{3} \\\hline & n \\\hline \end{array} (III)$$

in which

one or more of X_1 , X_2 and X_3 represents a group R' - $(N=C=O)_p$ in which R' is a p-valent aliphatic group and p is an integer ranging from 0 to 5,

the others representing, where appropriate, a group of formula



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Marked-up Claims 39, 48-54, 59, 60, 62, 64-67, 69, 70 and 72-75

R' and p being as defined above,

 R_1 is R, with the OH groups substituted, where appropriate, with a group $CONX_1H$, X_1 being as defined above, at least one of $NX'_1X''_1$, $NX'_2X''_2$ and $NX'_3X''_3$ represents the group

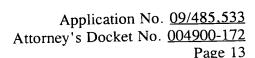
$$\begin{array}{c}
R' - (N = C = O)_p \\
C - NH - R' - (N = C = O)_p \\
0
\end{array}$$
(V)

R' and p being as defined above, the others representing a group NX_1H or NX_1 -silyl with X_1 as defined above and R_2 being R, with the OH groups substituted, where appropriate, with a group $CONX_1H$, or

$$-CO-N \xrightarrow{R' - (N = C = O)_p} C-NH-R' - (N = C = O)_p$$

$$0$$
(VI)

R' and p being as defined above,



Marked-up Claims 39, 48-54, 59, 60, 62, 64-67, 69, 70 and 72-75 and n is an integer ranging from 1 to 3,] wherein R_1 and/or R_2 represents a group selected from CH_2OH and CH_3CH_2 .

- 64. (Amended) A low-viscosity polyfunctional isocyanate composition comprising at least one uretidinedione isocyanate dimer and at least one compound having a biuret function, wherein said biuret unit containing compound represents at least 10% by weight based on the weight of the composition.
- 65. (Amended) A low-viscosity polyfunctional isocyanate composition comprising at least one uretidinedione isocyanate dimer and at least one compound having a biuret function, wherein said biuret unit containing compound represents at least 20% by weight based on the weight of the composition.
- 66. (Amended) A composition comprising at least one compound of general formula X:

$$(O = C = N)_{\underline{p}} R' - N \qquad (N = C = O)_{\underline{p}}$$

$$(X)$$

Marked-up Claims 39, 48-54, 59, 60, 62, 64-67, 69, 70 and 72-75

in which R' is a p-valent aliphatic group and p is an integer ranging from 0 to 5, and at least one compound of general formula II:

$$R_1$$
 $CH_2OCONHX_1$
 $CH_2OCONHX_2$
 $CH_2OCONHX_3$
 n

in which one or more of X_1 , X_2 and X_3 represents a group -R'-N=C=O [as defined above] and the others represent, [where appropriate,] a group

[R' and p being as defined above,]

and R_1 is [R] a mono- or n-valent hydrocarbon group having 1 to 30 carbon atoms, in which the hydrocarbon chain optionally is interrupted by one or more chalcogen atoms and optionally bears 1 to 3 OH group, with the OH groups optionally substituted[, where appropriate,] with a group CONX₁H wherein X_1 represents $R'(-N=C=O)_p$ [group in which R' is as defined above,]

and n is an integer from 1 to 3;

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Marked-up Claims 39, 48-54, 59, 60, 62, 64-67, 69, 70 and 72-75 and/or at least one compound of general formula III:

$$R_{2} \begin{array}{|c|c|c|c|c|}\hline CH_{2}OCONX'_{1}X"_{1}\\ \hline CH_{2}OCONX'_{2}X"_{2}\\ \hline CH_{2}OCONX'_{3}X"_{3}\\ n\\ \hline \end{array} (III)$$

in which at least one of NX'1X''1, NX'2X''2 and NX'3X''3 represents the group

$$--N \xrightarrow{R'-(N=-C=-O)_p} C-NH-R'-(N=-C=-O)_{\underline{p}} \qquad (V)$$

[R' and p being as defined above], the others representing a group NX_1H [with X_1 as defined above,] and

 R_2 being [R] a mono- or n-valent hydrocarbon group having 1 to 30 carbon atoms, in which the hydrocarbon chain optionally is interrupted by one or more chalcogen atoms and optionally, bears 1 to 3 OH groups, with the OH groups substituted with a group $CONX_1H$ or

$$-CO-N$$
 $R'-(N=C=O)_p$
 $C-NH-R'-(N=C=O)_p$
 0

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[as defined above,

and n is an integer ranging from 1 to 3,]

and/or a biuret compound obtained from an isocyanate of general formula VI

$$-CO-N \xrightarrow{R'-(N=C=O)_p} C-NH-R'-(N=C=O)_p$$

$$0$$
(VI)

[wherein R' and p are as defined above],

said composition further being free of dimerization catalyst [of] <u>selected from</u> phosphine, aminopyridine, phosphoramide, organometallic or tertiary amine [type].

67. (Amended) A composition according to Claim 66, further comprising a compound of general formula VIII:

$$\begin{bmatrix}
O = C = N \xrightarrow{p} R' & C & R' & N = C = O \\
N & C & N & C & N & C = O
\end{bmatrix}$$

$$\begin{bmatrix}
O = C = N \xrightarrow{p} R' & C & N & C = O
\end{bmatrix}$$

$$\begin{bmatrix}
C & C & N & C & N & C & N
\end{bmatrix}$$

$$\begin{bmatrix}
R' & (N = C = O)_p & (VIII)
\end{bmatrix}$$

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$$(O = C = N \xrightarrow{p} R' \xrightarrow{N} C \xrightarrow{N} R' \xrightarrow{N} C = O)_{p}$$

$$0 = C = N \xrightarrow{p} R' \xrightarrow{N} C \xrightarrow{N} C = O)_{p}$$

$$0 = C = N \xrightarrow{p} R' \xrightarrow{N} C \xrightarrow{N} C = O)_{p}$$

$$0 = C = N \xrightarrow{p} R' \xrightarrow{N} C \xrightarrow{N} C = O)_{p}$$

$$0 = C = N \xrightarrow{p} R' \xrightarrow{N} C \xrightarrow{N} C = O)_{p}$$

$$0 = C = N \xrightarrow{p} R' \xrightarrow{N} C \xrightarrow{N} C = O)_{p}$$

$$0 = C = N \xrightarrow{p} C \xrightarrow{N} C \xrightarrow{N} C = O)_{p}$$

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$$0 = N \xrightarrow{p} C \xrightarrow{N} C = O$$

$$0 = N \xrightarrow{p} C \xrightarrow{N} C = O$$

$$0 = N \xrightarrow{p} C \xrightarrow{N} C = O$$

$$0 = N \xrightarrow{p} C \xrightarrow{N} C = O$$

and/or a compound of general formula XIII:

$$\begin{array}{c|c}
R'' \\
O = C \\
N \\
N' - (NCO)_p \\
NH - R' - (NCO)_p
\end{array}$$
(XIII)

$$O = C \xrightarrow{N} R' - (NCO)_{p}$$

$$(OCN)_{p} - R' - N \xrightarrow{C} NH - R' - (NCO)_{p}$$

$$0$$

$$0$$

$$0$$

$$0$$

$$0$$

$$0$$

$$0$$

$$0$$

Marked-up Claims 39, 48-54, 59, 60, 62, 64-67, 69, 70 and 72-75

wherein R" represents H or a hydrocarbon group.

69. (Amended) A compound of general formula III

$$R_{2} \begin{array}{|c|c|c|c|c|}\hline CH_{2}OCONX'_{1}X"_{1}\\ \hline CH_{2}OCONX'_{2}X"_{2}\\ \hline CH_{2}OCONX'_{3}X"_{3}\\ \hline \end{array} (III)$$

in which

[one or more of X_1 , X_2 and X_3 represents a group R'-(N=C=O)_p in which R' is a p-valent aliphatic group and p is an integer ranging from 0 to 5,

the others representing, where appropriate, a group of formula

R' and p being as defined above,

 R_1 is R, with the OH groups substituted, where appropriate, with a group $CONX_1H$, X_1 being as defined above,]

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Marked-up Claims 39, 48-54, 59, 60, 62, 64-67, 69, 70 and 72-75

at least one of $NX'_1X''_1$, $NX'_2X''_2$ and $NX'_3X''_3$ represents the group

$$\begin{array}{c}
R' - (N = C = O)_p \\
C - NH - R' - (N = C = O)_p \\
0
\end{array}$$
(V)

[R' and p being as defined above] in which R' is a p-valent aliphatic group and p is an integer ranging from 0 to 5, the others representing a group NX_1H [or NX_1 -silyl] with X_1 [as defined above] representing a group R'-(N=C=O)_p and R₂ being [R] a mono- or p-valent hydrocarbon group having 1 to 30 carbon atoms in which the hydrocarbon chain optionally is interrupted by one or more chalcogen atoms and optionally bears 1 to 3 OH groups, with the OH groups optionally substituted[, where appropriate,] with a group $CONX_1H$, or

$$-CO - N - (N - C - O)_{p}$$

$$C - NH - R' - (N - C - O)_{p}$$

$$0$$

$$(VI)$$

[R' and p being as defined above,] and n is an integer ranging from 1 to 3[,

in which at least one of the groups $NX'_1X''_1$, $NX'_2X''_2$ and $NX'_3X''_3$ represents the group of formula V as defined above, the others representing a group NX_1H with X_1 , $X'_1X''_1$, $X'_2X''_2$ and $X'_3X''_3$ as defined above and R^1 as defined above].

Marked-up Claims 39, 48-54, 59, 60, 62, 64-67, 69, 70 and 72-75

- 70. (Amended) A compound according to Claim 69 in which:
- the groups $NX'_1X''_1$, $NX'_2X''_2$ and $NX'_3X''_3$ are selected from a group of general formula NX_1H , a group of general formula V, a uretidinedione group of formula V, an isocyanurate group of formula V:

$$\begin{array}{c|c}
O & & & \\
R' & & & \\
O & & & \\
O & & & \\
\hline
O & & & \\
R' & & & \\
\hline
R' & & & \\
\end{array}$$

$$\begin{array}{c|c}
R' & & & \\
\hline
O & & \\
\hline
R' & & \\
\end{array}$$

$$\begin{array}{c|c}
R' & & \\
\hline
O & & \\
\end{array}$$

$$\begin{array}{c|c}
R' & & \\
\hline
O & & \\
\end{array}$$

$$\begin{array}{c|c}
C & & \\
\hline
O & & \\
\end{array}$$

$$\begin{array}{c|c}
C & & \\
\hline
O & & \\
\end{array}$$

$$\begin{array}{c|c}
C & & \\
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O & & \\
\end{array}$$

$$\begin{array}{c|c}
C & & \\
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O & & \\
\end{array}$$

$$\begin{array}{c|c}
C & & \\
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O & & \\
\end{array}$$

$$\begin{array}{c|c}
C & & \\
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O & & \\
\end{array}$$

$$\begin{array}{c|c}
C & & \\
\hline
O & & \\
\end{array}$$

$$\begin{array}{c|c}
C & & \\
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O & & \\
\end{array}$$

$$\begin{array}{c|c}
C & & \\
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O & & \\
\end{array}$$

$$\begin{array}{c|c}
C & & \\
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O & & \\
\end{array}$$

$$\begin{array}{c|c}
C & & \\
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O & & \\
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$$\begin{array}{c|c}
C & & \\
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O & & \\
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$$\begin{array}{c|c}
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O & & \\
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$$\begin{array}{c|c}
C & & \\
\hline
O & & \\
\end{array}$$

$$\begin{array}{c|c}
C & & \\$$

and, a biuret group of formula XII:

$$O = C \xrightarrow{N} R''$$

$$O = C \xrightarrow{N} R' - N$$

$$O = C \xrightarrow$$

R" represents H or a hydrocarbon[-based] group, wherein

[R_2 represents the group R with] the <u>optional</u> OH groups <u>in R_2 are optionally</u> substituted[, [where appropriate,] with a group selected from CONHX₁, a group of formula VI, [a group of formula VI,] a group of formula <u>IV</u>, [-CO-NH- (group of formula IV), -CO-NH-

Attachment to Amendment Pursuant to 37 C.F.R. § 1.111 dated January 2, 2002

Marked-up Claims 39, 48-54, 59, 60, 62, 64-67, 69, 70 and 72-75

(] a group of formula XI[) and -CO-NH- (] or a group of formula XII[)], with the proviso that the compounds containing at least one carbamate group of formula NX₁H, or CONHX₁H respectively, and/or allophanate group of formula V, or [-CO-NH- (]group of formula V[)] respectively, [and] also contain at least one group selected from a uretidinedione group of general formula IV, or [-CO-NH- (]group of general formula IV[)], respectively, an isocyanurate group of general formula XI, or [-CO-NH- (]group of general formula XII[)] respectively, and a biuret group of general formula XII, or [-CO-NH- (]group of general formula XII]) respectively.

- 72. (Amended) A compound according to Claim 69, wherein R' is [a group] selected from a group $(CH_2)_n$ with n ranging from 2 to 8, optionally substituted with a hydrocarbon[-based] chain optionally bearing an isocyanate function, a norbornylmethylene group, a cyclohexylmethylene group or a 3,3,5-trimethylcyclohexyl methylene group.
- 73. (Amended) A composition [for simultaneous or successive application,] comprising:
 - at least one polyisocyanate composition according to Claim 65; and
 - a polyol.

Marked-up Claims 39, 48-54, 59, 60, 62, 64-67, 69, 70 and 72-75

74. (Amended) A composition [for simultaneous or successive application,] comprising:

• • •

- at least one polyisocyanate composition according to Claim 65; and
- [a polyol of acrylate type] an acrylate polyol which satisfies the following conditions for a dry extract [(DE) of 75-80% by weight]:
- Mw (weight-average molecular weight) not greater than 10,000[, advantageously not greater than 5000];
 - Mn (number-average molecular weight) of not greater than 5000;
 - Mw/Mn (dispersity ratio) of not greater than 5;
 - number of OHs/molecule of greater than or equal to 2.
- 75. (Amended) A composition for simultaneous or successive application, comprising:
 - at least one polyisocyanate composition according to Claim 65; and
- a [polyol of] polyester [type] polyol having [100% dry extract and] a viscosity of not greater than 10,000 mPa.s, and an Mw of between 250 and 8000.